Amendments to the Claims:

This listing of claims will replace all prior versions and listings of claims in the application:

Listing of Claims:

1. (Currently Amended) A method of generating an adaptive slicer threshold from a received demodulated signal, the method comprising ~~the steps of~~:

detecting a maximum value ~~plurality of maximum values~~ of the signal over a predetermined period~~, for at least two periods~~;

storing said detected maximum value ~~values~~ only upon occurrence of a bit level change detected by a slope detector computing a difference between said maximum value with a previously stored minimum value and comparing said difference with respect to a first value;

detecting a minimum value ~~plurality of minimum values~~ of the signal over a predetermined period~~, for at least two periods~~;

storing said detected minimum value ~~values~~ only upon occurrence of a bit level change detected by said slope detector computing a difference between said minimum value with a previously stored maximum value and comparing said difference with respect to a second value;

averaging a ~~select~~ number ~~of the plurality~~ of stored maximum values and averaging a ~~select~~ number ~~of the plurality~~ of stored minimum values; and

calculating the slicer threshold from the average minimum and maximum values.

2. (Previously Presented) The method according to claim 1, wherein the averages of the maximum and minimum values are calculated using a running average over the n last successive selected maximum or minimum values, n being a predetermined integer greater than 1.

3. (Original) The method according to claim 1, wherein n ranges from 2 to 6.

4. (Original) The method according to claim 3, wherein n is equal to 4.

5. (Previously Presented) The method according to claim 1, wherein the step of detecting a maximum value comprises the operations of:

- detecting a maximum peak of the signal during the predetermined period, the maximum signal peak corresponding to a point where the signal first-order derivative is zero and the signal second-order derivative has a negative value, and

- holding the value of the detected maximum peak as the maximum value over the predetermined period.

6. (Previously Presented) The method according to claim 1, wherein the step of determining the minimum value comprises the operations of:

- detecting a minimum peak of the signal during the predetermined period, the minimum signal peak corresponding to a point where the signal first-order derivative is zero and where the signal second-order derivative has a positive value, and

- holding the value of the detected minimum peak as the minimum value over the predetermined period.

7. (Previously Presented) The method according to claim 5, wherein a new detected maximum value is used to calculate the average maximum value only if a minimum peak has been detected during the previous predetermined period, and a new detected minimum value is used to calculate the average minimum value only if a maximum peak has been detected during the previous predetermined period.

8. (Currently Amended) A system for generating an adaptive slicer threshold from a received demodulated signal, the system comprising:

a first detector to detect a maximum value of the signal over a predetermined

period~~, for at least two periods~~;

a bit level detector for detecting bit level change by computing a difference between said maximum value and a previously stored minimum value and comparing said difference with respect to a first value;

a register for storing said detected maximum value only upon occurrence of a bit level change;

a second detector for detecting a minimum value of the signal over a predetermined period~~, for at least two periods~~; and

a register for storing said detected minimum value only upon occurrence of a bit level change by computing a difference between said minimum value and a previously stored maximum value and comparing said difference with respect to a second value,

wherein the system comprises an averaging unit operable to average a ~~select~~ number of [[the]] stored maximum values, to average a ~~select~~ number of [[the]] stored minimum values, and to calculate the slicer threshold from the ~~these~~ average minimum and maximum values.

9. (Previously Presented) The system according to claim 8, wherein it further comprises at least one FIFO memory to store said several maximum values and said several minimum values to be averaged.

10. (Previously Presented) The system according to claim 8, wherein the first and/or second detectors are a maximum peak detector and a minimum peak detector, respectively.

11. (Previously Presented) The system according to claim 8, wherein the system comprises a bit level detector associated with said at least one memory in order to activate the storage of a new minimum or maximum value only if a bit level change has been detected.